PCT

POWER OF ATTORNEY

(for several international applications filed under the Patent Cooperation Treaty)

(PCT Rule 90.5)

The undersigned person(s)

(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

FREIDHOFF, Carl, B. 3 Dickinson Court New Freedom, PA 17349 United States of America

hereby appoints (appoint) the following person as: [X] agent [] common representative

Name and address

(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

ROTHWELL, G. Franklin, Reg. No. 18,125 FIGG, E. Anthony, Reg. No. 27,195 ERNST, Barbara G., Reg. No. 30,377 MANBECK, Harry F., Jr., Reg. No. 17.348 REPPER, George R., Reg. No. 31,414 DELUCA, Vincent M., Reg. No. 32,408 HYNDS, Joseph A., Reg. No. 34,627 BOWDITCH, Mark I., Reg. No. 40,315 KERR, Don M., Reg. No. 22,720 IHNEN, Jeffrey L., Reg. No. 28,957 KARTA, Glenn E., Reg. No. 30,649 WYDEVEN, Richard, Reg. No. 39,881 ZOLTICK, Martin, M., Reg. No. 35,745 BHATT, Minaksi, Reg. No. 35,447

SULLIVAN, Michael, G., Reg. No. 35,377 DAVIS, Monica, S., Reg. No. 44,492 MURRAY, Robert B., Reg. No. 22,980 CASSIDY, Martha, Reg. No. 44,066 MCKIERNAN, Thomas E., Reg. No. 37,889 MORAN, Michael J., Reg. No. 42,013 GIFFORD, C. Nichole, Reg. No. 44,122 ROSENBLOOM, Brian, S., 41,276 SKACEL, Patrick, Reg. No. 47,948 DEWEERD, Willem F., Reg. No. 51,613 PARKER, Stephen B., Reg. No. 36,631 PATE, Tara J., Reg. No. 52,099 KITTS, Monica Chin, Reg. No. 36,105

all of ROTHWELL, FIGG, ERNST & MANBECK, P.C., 1425 K Street, N.W., Suite 800, Washington, D.C. 20005, United States of America

to represent the undersigned before [X]all the competent International Authorities the International Searching Authority only $[\]$ [] the International Preliminary Examining Authority only

in connection with any and all international applications filed by the undersigned with the United States Patent and Trademark Office as receiving Office and to make or receive payments on behalf of the undersigned.

Signature(s) (where there are several applicants, each of them must sign; next to each signature, indicate the name of the person signing and the capacity in which the person signs, if such capacity is not obvious from reading the request or this power):

FREIDHOFF, Carl. B.

By: Carl B. Freidhoff

Date: 21 March 2003

PCT

POWER OF ATTORNEY

(for several international applications filed under the Patent Cooperation Treaty)

(PCT Rule 90.5)

The undersigned person(s)
(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

NORTHROP GRUMMAN CORPORATION

1940 Continue Death Text	
1840 Century Park East	•
Los Angeles, California 90067	
United States of America	
hereby appoints (appoint) the following person as:	[X] agent
	[] common representative
	[] remain representative
Name and address	
(Family name followed by given name; for a legal entity, full official designation.	The address must include postal code and name of country.)
ROTHWELL, G. Franklin, Reg. No. 18,125	SHLLIVAN Michael C. Doz. No. 25 277
FIGG, E. Anthony, Reg. No. 27,195	SULLIVAN, Michael, G., Reg. No. 35,377
ERNST, Barbara G., Reg. No. 30,377	DAVIS, Monica, S., Reg. No. 44,492
MANBECK, Harry F., Jr., Reg. No. 17,348	MURRAY, Robert B., Reg. No. 22,980
REPPER, George R., Reg. No. 31,414	CASSIDY, Martha, Reg. No. 44,066
DELUCA, Vincent M., Reg. No. 32,408	MCKIERNAN, Thomas E., Reg. No. 37,889
HYNDS, Joseph A., Reg. No. 34,627	MORAN, Michael J., Reg. No. 42,013
BOWDITCH, Mark I., Reg. No. 40,315	GIFFORD, C. Nichole, Reg. No. 44,122
KERR, Don M., Reg. No. 22,720	ROSENBLOOM, Brian, S., 41,276
IHNEN, Jeffrey L., Reg. No. 28,957	SKACEL, Patrick, Reg. No. 47,948
KARTA, Glenn E., Reg. No. 30,649	DEWEERD, Willem F., Reg. No. 51,613
WYDEVEN, Richard, Reg. No. 39,881	PARKER, Stephen B., Reg. No. 36,631
	PATE, Tara J., Reg. No. 52,099
ZOLTICK, Martin, M., Reg. No. 35,745 BHATT, Minaksi, Reg. No. 35,447	KITTS, Monica Chin, Reg. No. 36,105
5111111, Williamsi, Reg. 140. 55,447	
all of ROTHWELL, FIGG, ERNST & MANBECK, F	C 1425 V Chroat N.W. C . 000 W
D.C. 20005, United States of America	7.C., 1423 K Street, N.W., Suite 800, Washington
of America	
to represent the undersigned before [X] all the	competent International Authorities
_ _	ernational Searching Authority only
[] the Inte	ernational Preliminary Examining Authority only
•	
in connection with any and all international application	ons filed by the undersigned with the United States
Patent and Trademark Office as receiving Office an	id to make or receive payments on behalf of the
undersigned.	of the
~.	
Signature(s) (where there are several applicants, each of them must sign; n	text to each signature, indicate the name of the person signing and the capacity
in which the person signs, if such capacity is not obvious from	reading the request or this power):
NORTHROP GRUMMAN CORPORATION	
W 1 - 0 0	•
By: Jacklin Jalmas	Date: 3/13/03
Name: Kathleen Salmas	
1 × 1 × 1 × 1 × 1 × 1	

Title: Asst. Corporate Secretary